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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Shlomo Ovadia

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05/03/2006

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EXAMINER

LAYE, JADE O

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/819,163

Applicant(s)

OVADIA, SHLOMO

Examiner

Jade O. Laye

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 3,5,6,9,13,16,23 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

I. Applicant's amendments, dated 2/9/06, have been entered and made of record. Accordingly, the objection made in the previous action is hereby withdrawn.

Response to Arguments

II. Applicant's arguments filed 2/9/06 have been fully considered but they are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**.

Applicant argues *Roeck* fails to teach "modifying receiver parameters to effect a low signal to noise ratio and a wide auto-gain control loop bandwidth." The Examiner disagrees. In support of this position, the Examiner refers Applicant to the previous action's rejection of Claim 28, which Applicant has now cancelled and incorporated into Claims 1, 11, and 19. The Examiner considers this reasoning sufficient to rebut Applicant's argument. However, the Examiner has further clarified his argument in the rejection below.

Moreover, Applicant fails to explain "why" *Roeck* does not read upon this limitation. Applicant simply states what the Examiner reasoned in the previous action and says he or she disagrees. It is assumed Applicant is arguing the "*wide auto-gain control loop bandwidth*" is not met, but provides no basis for this nor does Applicant's specification assist the Examiner in ascertaining why Applicant opines *Roeck* fails to read upon said limitation. The Examiner fails to see how this form of advocacy further prosecution of the case. Being there is no further argument to respond too, the Examiner considers the previous action's reasoning sufficient.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

III. Claims 1, 2, 4, 7, 8, 10, 11, 12, 14, 15, 17-20, 22, and 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by *Roeck et al.* (US Pat. No. 6,574,796).

As to claim 1, *Roeck* discloses a data carrier detection system utilized in cable networks. More specifically, *Roeck*'s systems tunes to a channel within the broadband cable signal in order to receive modem-operating parameters (i.e., initial maintenance request messages contained within A data channel), wherein the cable broadband system is associated with a first modulation technique (for example, QPSK). The system is then able to reconfigure itself to detect, and subsequently demodulate, another modulation technique (such as QAM) which is also utilized by the data channel. The system will then perform a channel sweep (i.e., sweep of carrier band) using the reconfigured modulation technique (i.e., sweeping while temporarily modified). (Abstract; Col. 5, Ln. 40-63; Col. 6, Ln. 42-62; Col. 7, Ln. 25-41; Col. 9, Ln. 42-Col. 11, Ln. 51). Once the data channel has been located, it is inherent said data channel be demodulated in order to receive the initial maintenance parameters (i.e., operating parameters), which will be used to update the operating characteristics of the cable modem.

Moreover, *Roeck* further teaches the system is capable of effecting a low SNR and controls noise levels on the system (AGC is used to control noise levels and/or volume levels). (Col. 8, Ln. 59-Col. 9, Ln. 20 & 41-64; Col. 10, Ln. 35-43). More specifically, *Roeck* discloses

the *SNR of the entire bandwidth* (i.e., wide bandwidth loop) is *automatically* compared to a SNR threshold, which enables the system to detect the data carrier. (Col. 9, Ln. 60-64). This threshold, in effect, controls the noise level of the entire bandwidth because the system will only accept a certain amount of noise. Accordingly, *Roeck et al* anticipate each and every limitation of claim 1.

Claims 10, 11, 18, and 19 correspond to the method claim 1. Thus, each is analyzed and rejected as previously discussed.

As to claim 2, *Roeck's* data channel is a "narrow band" channel within the broadband cable signal. Accordingly, *Roeck et al* anticipate each and every limitation of claim 2.

As to claim 4, *Roeck* further teaches accessing a list of channels within the system (inherent they be stored), selecting a channel (i.e., frequency) from the list, and *demodulating the channel to recover system information* (as discussed under the rejection of Claim 1). Col. 4, Ln. 52-66 & Col. 9, Ln. 42-63). Accordingly, *Roeck et al* anticipate each and every limitation of claim 4.

Claims 12 and 20 correspond to the method claim 4. (**note:** italicized portion above needed to reject claims 12 and 20). Therefore, each is analyzed and rejected as previously discussed.

As to claim 7, *Roeck* further teaches the system will continue scanning channels until the data channel (which contains updating characteristics, etc.) is located. (Col. 10, Ln. 66-Col. 11, Ln. 22). Accordingly, *Roeck et al* anticipate each and every limitation of claim 7.

Claims 14 and 22 correspond to the method claim 7. Thus, each is analyzed and rejected as previously discussed.

As to claim 8, *Roeck* further discloses the system can first scan the most recently used channel, which inherently was a data channel. (Col. 9, Ln. 42-64). Since the system can contain a list in which each channel contained in said list is scanned in turn, it is inherent the most recently used data channel would be first in the list. If not, the system would not scan the most recently used channel first. Accordingly, *Roeck et al* anticipate each and every limitation of claim 8.

Claim 15 corresponds to the method claim 8. Thus, it is analyzed and rejected as previously discussed.

As to Claim 17, it is inherent the system of *Roeck* restore the demodulating parameters once the data channel has been ascertained because the broadband signal and data channels are modulated using different techniques. Moreover, *Roeck* also teaches the system processor detects the data carrier by examining the demodulation error of the received symbols (i.e., info extracted from the demodulated data). (Col. 8, Ln. 59-Col. 9, Ln. 20). Accordingly, *Roeck et al* anticipate each and every limitation of claim 17.

Claims 24 and 25 correspond to Claim 17. Thus, each is analyzed and rejected as previously discussed.

As to Claim 27, *Roeck* further teaches the receiver is capable of switching to a QPSK mode. (same citations used under Claim 1). Accordingly, *Roeck et al* anticipate each and every limitation of claim 27.

As to Claim 29, the Examiner interprets “adaptive equalizer” to denote a device which could accomplish any of a number of functions. For example, it may be used to reduce distortion over transmission paths, improve frequency response, or ensure signals have fixed amplitudes or

energy levels. Taking this into account, *Roeck*'s system comprises an internal amplifier that ensures the incoming signal has a fixed amplitude and/or energy level. (Col. 9, Ln. 42-Col. 10, Ln. 20). This facilitates the system's primary function of detecting data carriers via a modulation scheme (QPSK, QAM) analysis. Accordingly, *Roeck et al* anticipate each and every limitation of claim 29.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-4, Tues. 7:30-2, W-Fri. 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Jade O. Laye
Initials: _____
April 28, 2006.


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600